

What Is Claimed Is:

1. A sputtering system for depositing a thin film on a substrate, comprising:
- a vacuum chamber;
 - a support for supporting the substrate in the vacuum chamber;
 - a target arranged to oppose the support;
 - a fixed plate formed on a first side of the target; and
 - a plurality of electromagnets formed on the fixed plate in a cell pattern.

2. The system according to claim 1, wherein the plurality of electromagnets are individually controlled.

3. The system according to claim 1, wherein the cell pattern includes a plurality of groups of the electromagnets, each group being separately controlled.

4. The system according to claim 3, wherein the plurality of groups of the electromagnets includes at least a first group of the electromagnets having one of a triangular, pentagonal, and hexagonal array pattern.

5. The system according to claim 4, wherein the plurality of groups of the electromagnets includes at least a second group of the electromagnets having one of a triangular, pentagonal, and hexagonal array pattern.

6. The system according to claim 5, wherein the first group of the electromagnets is independently controlled from the second group of the electromagnets.

7. The system according to claim 1, wherein the cell pattern includes a matrix array pattern of the plurality of electromagnets.

8. The system according to claim 1, wherein the cell pattern includes a hexagonal array pattern of the plurality of electromagnets.

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